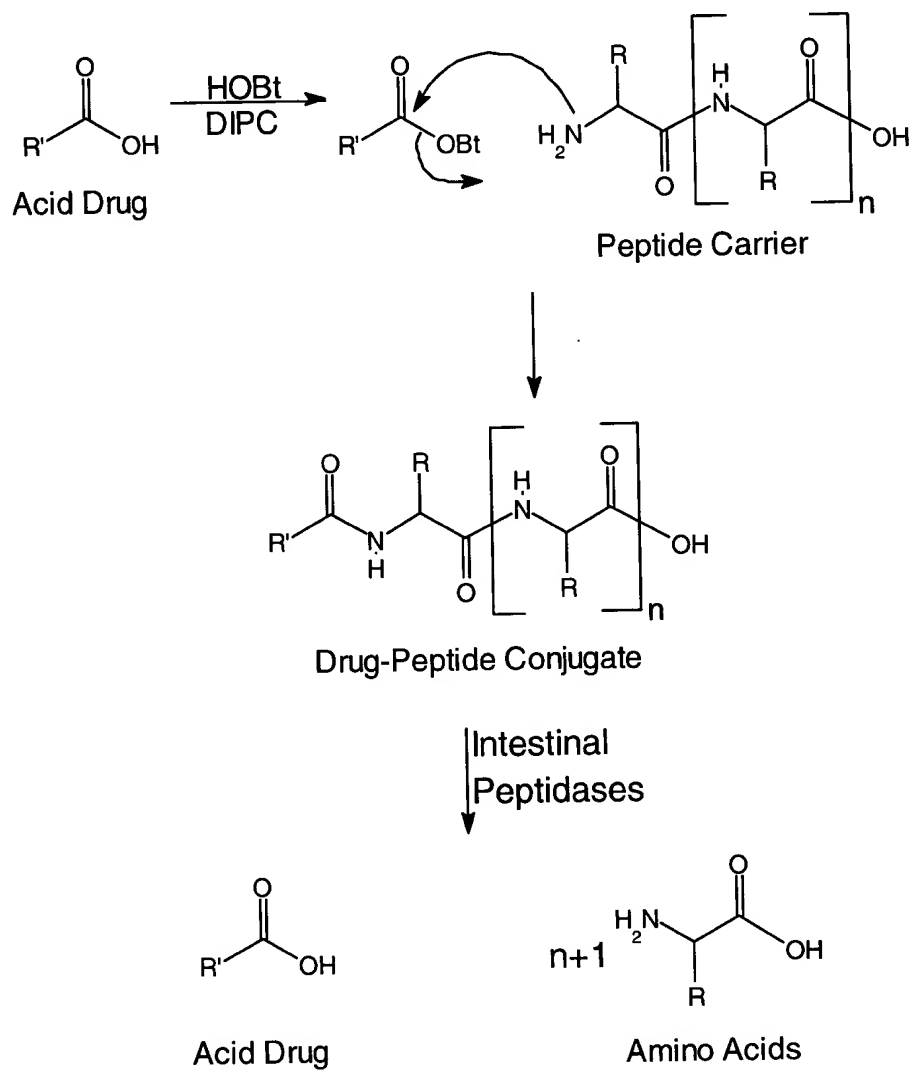


Figure 1

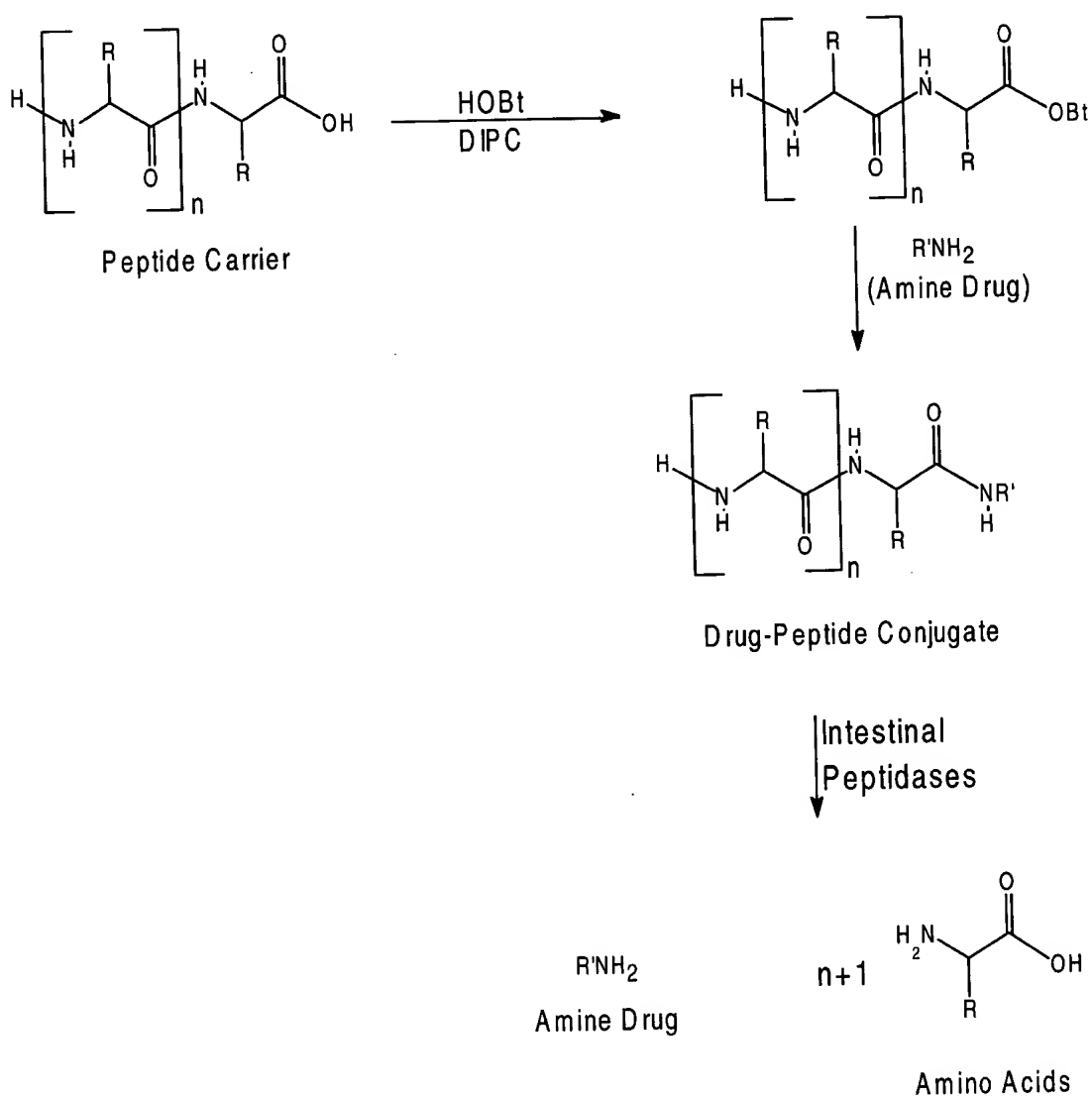
Acid Drug/N-Terminus Scheme



R'=Radical moiety attached to acid functionality on drug
 R=Side chain of amino acid or peptide
 HOBt=Hydroxybenzotriazole
 DIPC=Diisopropylcarbodiimide

Figure 2

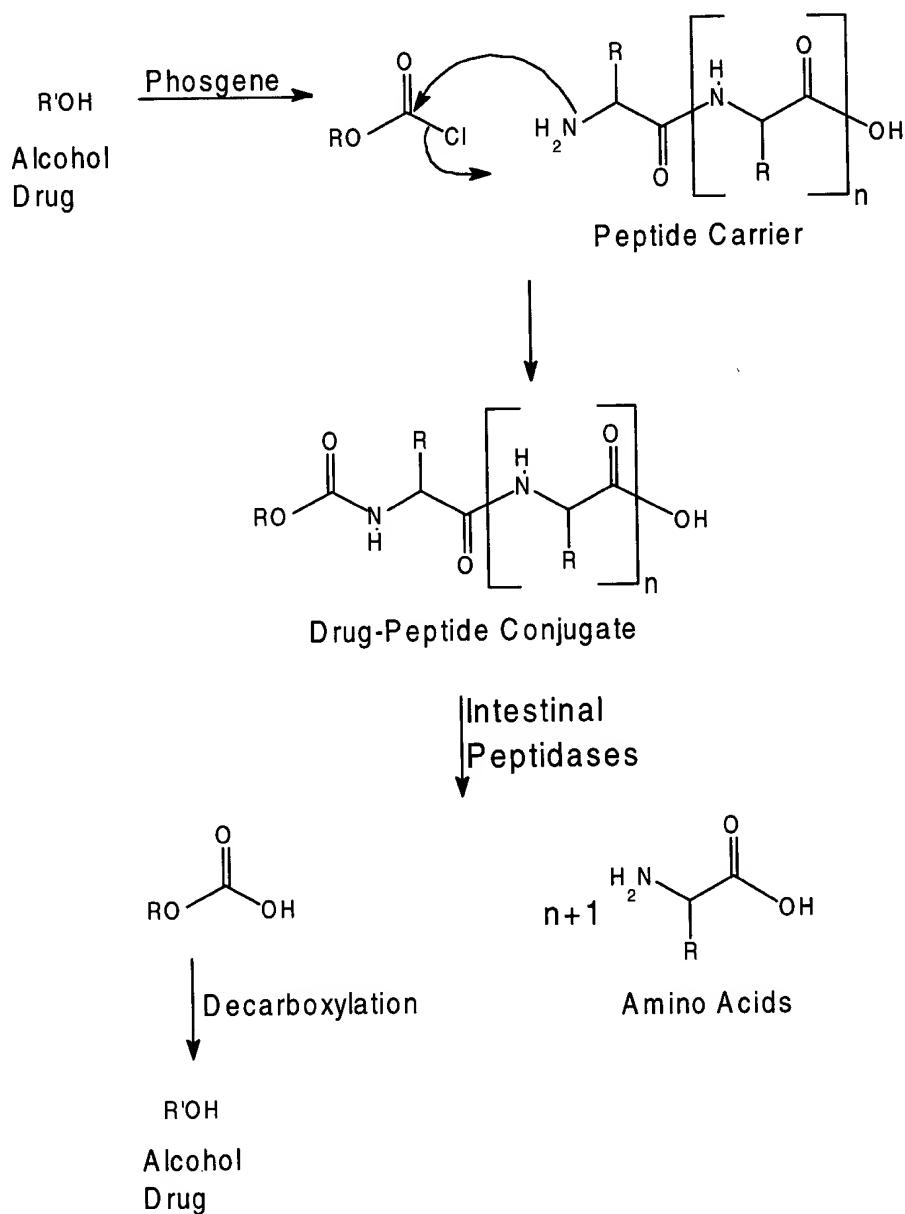
Amine Drug/C-Terminus Scheme



R'=Radical moiety attached to amine functionality on drug
 R=Side chain of amino acid or peptide
 HOBt=Hydroxybenzotriazole
 DIPC=Diisopropylcarbodiimide

Figure 3

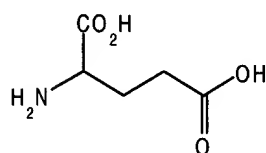
Alcohol Drug/N-Terminus Scheme



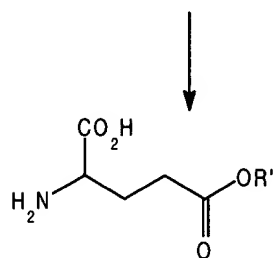
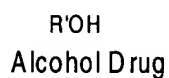
R' =Radical moiety attached to alcohol functionality on drug
 R =Side chain of amino acid or peptide

Figure 4

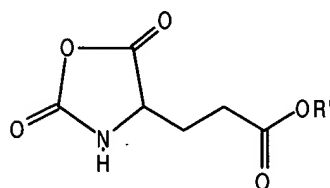
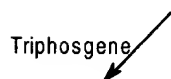
Alcohol Drug/Glutamic Acid Dimer Preparation and Conjugation Scheme



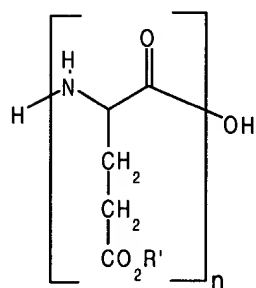
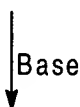
Glutamic Acid



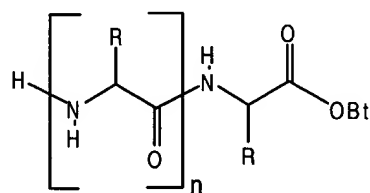
Gamma-alkylglutamate



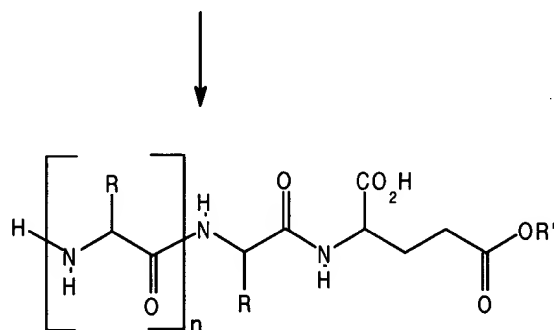
γ -Alkylglutamate-NCA



Poly[γ -alkylglutamate]



Activated Peptide Carrier
(see Figure 3)

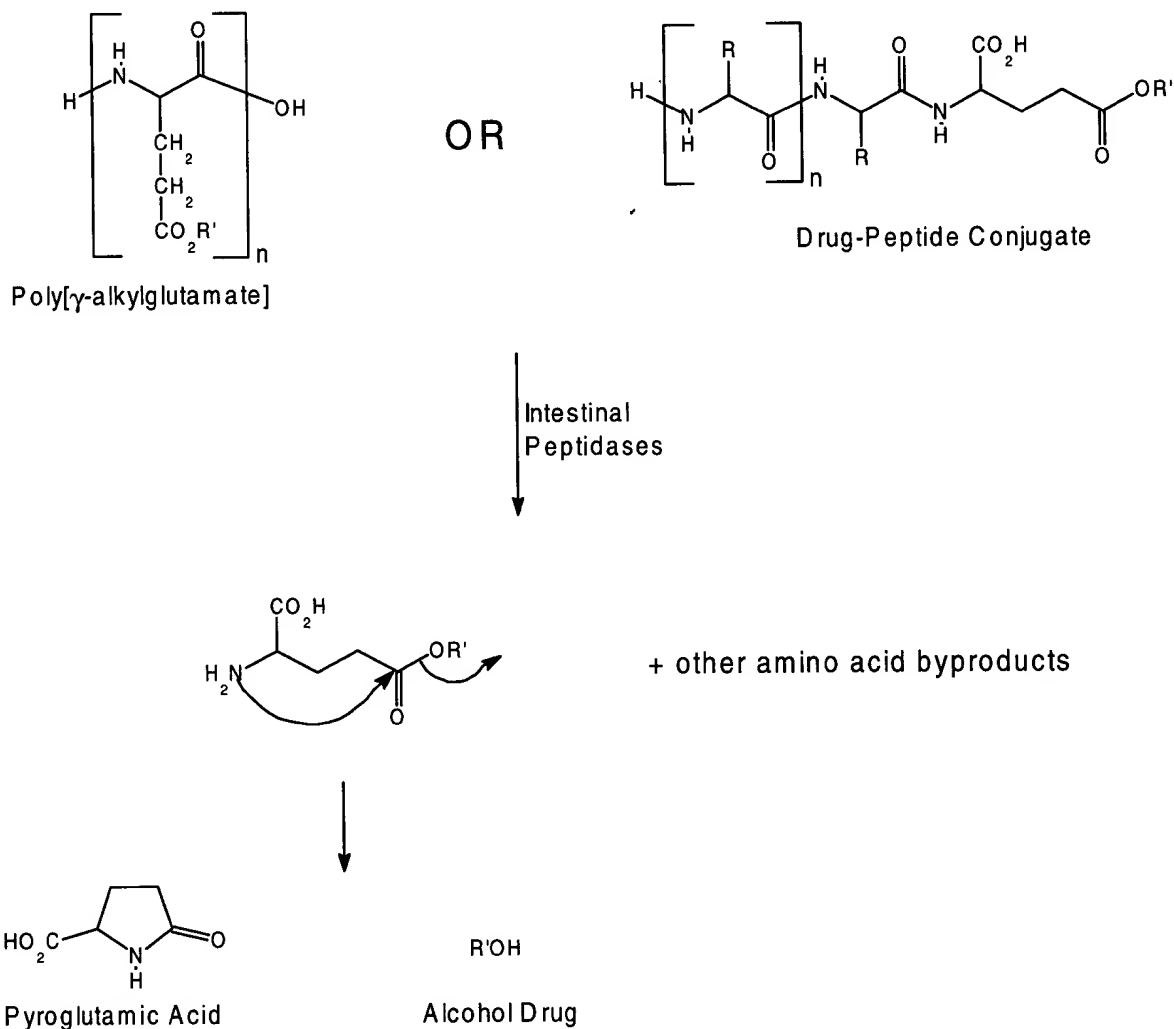


Drug-Peptide Conjugate

R'=Radical moiety attached to alcohol functionality on drug
R=Side chain of amino acid or peptide
OBt=Oxybenzotriazole
NCA=N-Carboxyanhydride

Figure 5

Mechanism of Alcohol Drug From Glutamic Acid Dimer Scheme



R'=Radical moiety attached to alcohol functionality on drug
 R=Side chain of amino acid or peptide

100
80
60
40
20
0

Fig. 6. In situ Digestion of Polythroid in Intestinal Epithelial Cell Cultures

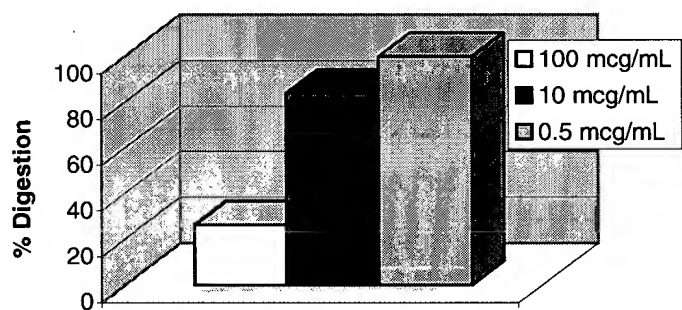
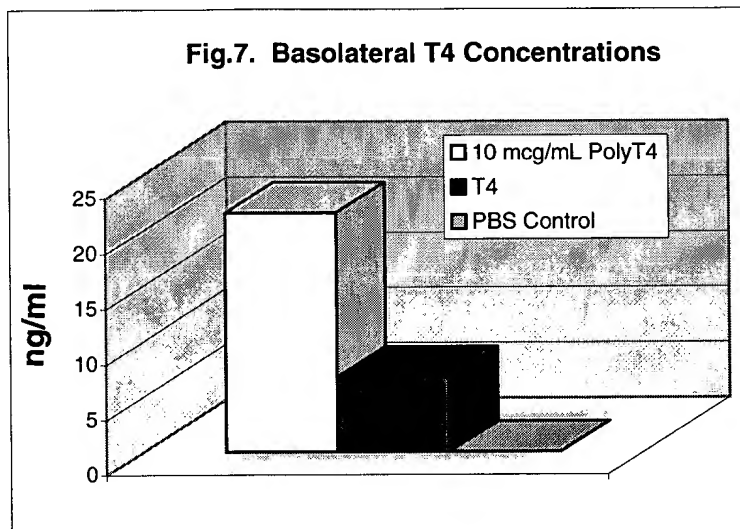
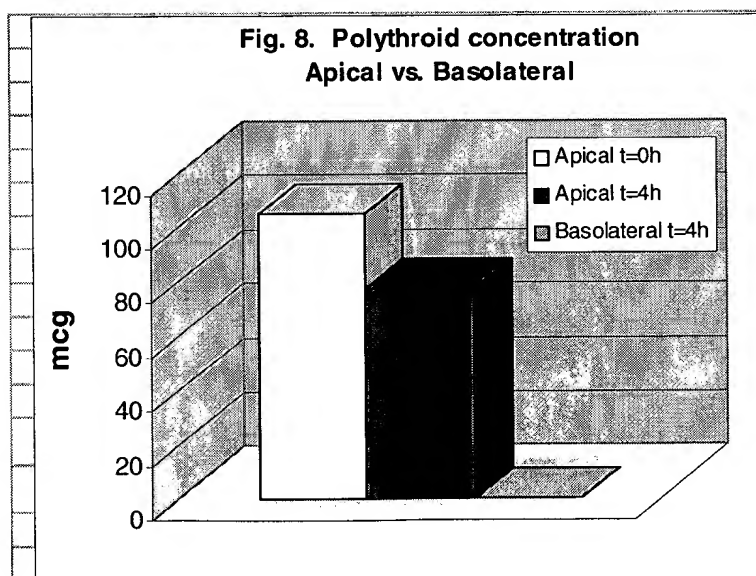


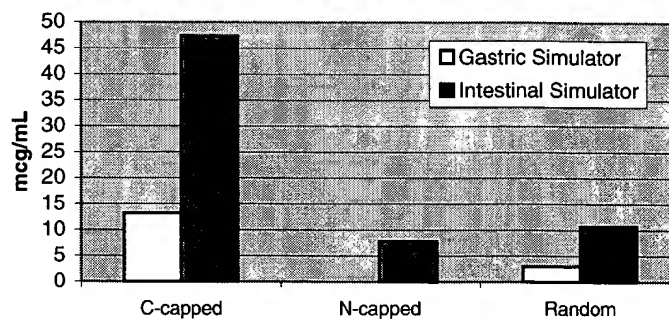
Fig.7. Basolateral T4 Concentrations



**Fig. 8. Polythroid concentration
Apical vs. Basolateral**



**Fig. 9. Gastric Simulator vs Intestinal Simulator
T4 Analysis**



**Fig. 10. Gastric Simulator vs Intestinal Simulator
T3 Analysis**

